



The
Patent
Office

T/GB 98 / 0 2 6 1 9
6

The Patent Office
Concept House
Cardiff Road
Newport
South Wales
NP9 1RH

PRIORITY DOCUMENT

REC'D 28 SEP 1998

I, the undersigned, being an officer duly authorised in accordance with Section 74(1) and (4) of the Deregulation & Contracting Out Act 1994, to sign and issue certificates on behalf of the Comptroller-General, hereby certify that annexed hereto is a true copy of the documents as originally filed in connection with the patent application identified therein.

In accordance with the Patents (Companies Re-registration) Rules 1982, if a company named in this certificate and any accompanying documents has re-registered under the Companies Act 1980 with the same name as that with which it was registered immediately before re-registration save for the substitution as, or inclusion as, the last part of the name of the words "public limited company" or their equivalents in Welsh, references to the name of the company in this certificate and any accompanying documents shall be treated as references to the name with which it is so re-registered.

In accordance with the rules, the words "public limited company" may be replaced by p.l.c., plc, P.L.C. or PLC.

Re-registration under the Companies Act does not constitute a new legal entity but merely subjects the company to certain additional company law rules.

Signed

Andrew Gersey

Dated

10 SEP 1998

Rules Act 1977
(Rule 16)

The Patent

1 / 77

26SEP97 E305770-3 D00335...
P01/7700 25.00 - 9720436.6

The Patent Office

Cardiff Road
Newport
Gwent NP9 1RH

Request for grant of a patent

(See the notes on the back of this form. You can also get an explanatory leaflet from the Patent Office to help you fill in this form)

THE PATENT OFFICE

26 SEP 1997

RECEIVED BY POST
£25.00

- | | | | | |
|----|---|--|---|------------------------------------|
| 1. | Your reference | NMM/DCS/P97869GB | | |
| 2. | Patent application number
(The Patent Office will fill in this part) | 9720436.6 | 26 SEP 1997 | |
| 3. | Full name, address and postcode of the or of each applicant (underline all surnames) | FibreTech Limited
Brook Mill,
Hollins Road,
Oldham,
OL8 4JY

Patents ADP number (if you know it)
If the applicant is a corporate body, give the country/state of its incorporation

729297200/ | | |
| 4. | Title of the invention | IMPROVEMENTS IN OR RELATING TO A POLYESTER FIBRE FILLING | | |
| 5. | Name of your agent (if you have one) | W.P.THOMPSON & CO. | | |
| | "Address for service" in the United Kingdom to which all correspondence should be sent (including the postcode) | Coopers Building,
Church Street,
Liverpool,
L1 3AB. | | |
| | Patents ADP number (if you know it) | 0000158001 <i>ALRB</i> | | |
| 6. | If you are declaring priority from one or more earlier patent applications, give the country and the date of filing of the or of each of these earlier applications and (if you know it) the or each application number | Country | Priority application number
(if you know it) | Date of filing
(Day/month/year) |
| 7. | If this application is divided or otherwise derived from an earlier UK application, give the number and the filing date of the earlier application | Number of earlier application | | Date of filing
(Day/month/year) |
| 8. | Is a statement of inventorship and of right to grant of a patent required in support of this request? (Answer 'yes' if:
a) any applicant named in part 3 is not an inventor, or
b) there is an inventor who is not named as an applicant, or
c) any named applicant is a corporate body. | | | |
| | NO YES | | | |

9. Enter then number of sheets for any of the following items you are filing with this form. Do not count copies of the same document

Continuation sheets of this form

Description 3

Claims(s)

Abstract

Drawing(s)

10. If you are also filing any of the following, state how many against each item.

Priority documents

Translations of priority documents

Statement of inventorship and right to grant of a patent (*Patents Form 7/77*)

Request for preliminary examination and search (*Patents Form 9/77*)

Request for substantive examination (*Patents Form 10/77*)

Any other documents
(Please specify)

11. I/We request the grant of a patent on the basis of this application

Signature

Date 25/09/1997

W.P. Thompson & Co.
W.P. THOMPSON & CO.

12. Name and daytime telephone number of person to contact in the United Kingdom D. C. SCHILLER
0151-709-3961.

Warning

After an application for a patent has been filed, the Comptroller of the Patent Office will consider whether publication or communication of the invention should be prohibited or restricted under Section 22 of the Patents Act 1977. You will be informed if it is necessary to prohibit or restrict your invention in this way. Furthermore, if you live in the United Kingdom, Section 23 of the Patents Act 1977 stops you from applying for a patent abroad without first getting written permission from the Patent Office unless an application has been filed at least 6 weeks beforehand in the United Kingdom for a patent for the same invention and either no direction prohibiting publication or communication has been given, or any such direction has been revoked.

Notes

- If you need help to fill in this form or you have any questions, please contact the Patent Office on 01645 500505
- Write your answers in capital letters using black ink or you may type them.
- If there is not enough space for all the relevant details on any part of this form, please continue on a separate sheet of paper and write "see continuation sheet" in the relevant part(s). Any continuation sheet should be attached to this form.
- If you have answered 'Yes' Patents Form 7/77 will need to be filed.
- Once you have filled in the form you must remember to sign and date it.
- For details of the fee and ways to pay please contact the Patent Office.

DESCRIPTION

IMPROVEMENTS IN OR RELATING TO A

POLYESTER FIBRE FILLING

The present invention relates to a filling comprising a polyester fibre. More particularly it relates to an improved polyester fibre containing filling for use in the soft furnishings industry, such as a filling for bedding, for example duvets, pillows and sleeping bags.

Polyester fibre, usually polyethyleneterephthalate, is an inexpensive alternative to down or feathers. However unlike down it lacks breathability. In an attempt to improve the characteristics of polyester fibre, which has the advantage that it is washable, blends with natural materials such as, for example, cotton, silk, down and feather have been tried.

Considerable effort has been made in the industry to provide a synthetic product which is a real alternative to down. Unfortunately during use, eventually all prior synthetic substitutes develop defects, such as matting of the fibrefill, resulting in the formation of lumps or clumps which show themselves as a lack of uniformity in the article, a reduction of softness and poor breathability.

It is an aim of the present invention to provide a synthetic fibrefill with improved breathability but which retains the desirable properties of polyester fibrefill.

It has unexpectedly been found that cellulosic fibres e.g. Lyocell, manufactured by Courtaulds, when blended with a polyester filling fibre such

as, for example, polyethyleneterephthalate gives rise to a product with improved characteristics including improved breathability compared to a polyester filling fibre alone. The finding was unexpected given that Lyocell fibres are flat and would not have been expected to be a good filling fibre. Lyocell is a cellulosic fibre made by direct dissolution of wood pulp in an organic solvent.

According to the present invention there is provided a blend comprising or consisting of a polyester filling fibre and a cellulosic fibre.

Preferably the cellulosic fibre is Courtaulds Lyocell cellulosic fibre.

Preferably the polyester filling fibre comprises or consists of polyethyleneterephthalate fibre.

Preferably the blend comprises, by weight, no more than 60% Lyocell.

More preferably the Lyocell is present in an amount of from 10 - 60%, more preferably still 20- 50% and more preferably still from 25- 50% of the blend.

Preferably the polyester filling fibre comprises mono fibres which are crimped or conjugate fibres. By conjugate fibres is meant fibres comprising two different fibre-forming polymeric units arranged side by side so that on heat treatment the fibre becomes spirally crimped.

Preferably the Lyocell fibres are saw-toothed crimp fibres.

More preferably the Lyocell fibres and polyester filling fibres are formed into a fibre ball. To form a fibre ball it is preferred to use a Lyocell cellulosic fibre blended with a conjugate polyester preferably of

polyethyleneterephthalate.

Alternatively a Lyocell cellulosic fibre and either a conjugate polyester or a regular saw tooth crimp polyester fibre are blended, carded and layered into a wadding.

According to a further aspect of the present invention there is provided a bedding article comprising a blend of the invention.

The bedding article may be, for example, a duvet, pillow, quilt, sleeping bag, cushion or other similar article.

The blend has characteristics which make it more desirable than polyethyleneterephthalate alone:

- 1) it has a more down like feel;
- 2) weight for weight it is warmer than polyethyleneterephthalate;
- 3) It is breathable, i.e. moisture absorbent; and
- 4) in the case of fibre balls it is more fluid.

The blending of fibres, and the production of fibre balls are well known processes to the man skilled in the art and are not therefore described herein.

PCT/GB 98/02619 - 1 SEP '98 - W. THOMPSON

+ Co.

9720436.6